

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

18 January 1989

EXAMINER HEARING

IN THE MATTER OF:

Application of Meridian Oil, Inc. for CASE
compulsory pooling, unorthodox gas 9535
well location, and non-standard gas
proration unit, San Juan County, New
Mexico, and

Application of Meridian Oil, Inc. for CASE
compulsory pooling, and a non-standard 9545
gas proration unit, San Juan County,
new Mexico.

BEFORE: Victor T. Lyon, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

For Meridian Oil, Inc.:

W. Thomas Kellahin
Attorney at Law
KELLAHIN, KELLAHIN & AUBREY
P. O. Box 2265
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I N D E X

STATEMENT BY MR. KELLAHIN

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ROBERT J. HOPKINS

Direct Examination by Mr. Kellahin

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JAMES A. SMITH

Direct Examination by Mr. Kellahin

13

Cross Examination by Mr. Lyon

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E X H I B I T S

Meridian Exhibit One, Land Plat

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Meridian Exhibit Two, Plat

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Meridian Exhibit Three, Plat

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Meridian Exhibit Four, Land Map

8

Meridian Exhibit Five, Map

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1 MR. LYON: Call next Case
2 9535. Application of Meridian Oil, Inc., for compulsory
3 pooling, unorthodox gas well location, and nonstandard gas
4 proration unit, San Juan County, New Mexico.

5 MR. KELLAHIN: Mr. Examiner,
6 my name is Tom Kellahin of the Santa Fe law firm of Kella-
7 hin, Kellahin & Aubrey. I'm appearing on behalf of Meri-
8 dian Oil, Inc., and I have two witnesses to be sworn in
9 this case.

10 MR. LYON: Would you both
11 stand and raise your right hands?

12
13 (Witnesses sworn.)

14
15 MR. LYON: Proceed, Mr.
16 Kellahin.

17 MR. KELLAHIN: Thank you, Mr.
18 Examiner.

19 In order to expedite the pre-
20 sentation today, we would like to request that you conso-
21 lidate Case 9535 with Case 9545 and call it at this time so
22 that we may make a similar presentation in that case with
23 these witnesses.

24 MR. LYON: Case 9545. Appli-
25 cation of Meridian Oil, Inc., for compulsory pooling, and a

1 nonstandard gas proration unit, San Juan County, New
2 Mexico.

3 Will you be using additional
4 witnesses?

5 MR. KELLAHIN: No, sir, I'd
6 like the record to reflect that we have the same witnesses
7 available for both cases.

8 MR. LYON: That will be fine.

9 MR. KELLAHIN: Mr. Examiner,
10 these two cases, 9535 and 9545, were first heard by Exa-
11 miner Stogner on, I believe, November 21st, at which point
12 we presented the compulsory pooling portion of the presen-
13 tation, which included a presentation by Mr. Hopkins, the
14 landman. We had presentation by the geologist, the
15 drilling engineer, and the reservoir engineer, with regards
16 to the factors involved in the compulsory pooling.

17 We've come back today to com-
18 plete the presentation of this case, to address the re-
19 maining portions of this case, which are to seek your ap-
20 proval of the two nonstandard proration units, as well as
21 the two unorthodox -- I'm sorry, of the one unorthodox gas
22 well location.

23 The two wells involve the
24 Basin Fruitland Coal Gas Pool.

25 The two witnesses I have for

1 you today are Mr. Bob Hopkins, who is the petroleum
2 landman that testified in the original case.

3 The second witness is Mr.
4 Jimmy Smith, who is a reservoir engineer, and both gentle-
5 men will talk about their reasons for seeking approval of
6 the locations and the nonstandard proration unit.

7 We've marked for presentation
8 the collective exhibits of both witnesses. They're marked
9 Exhibits One through Five and they will apply to both
10 cases.

11
12 ROBERT J. HOPKINS,
13 being called as a witness and being duly sworn upon his
14 oath, testified as follows, to-wit:

15
16 DIRECT EXAMINATION

17 BY MR. KELLAHIN:

18 Q Mr. Hopkins, would you please state your
19 name and occupation?

20 A Yes. I'm Robert Joseph Hopkins. I'm a
21 Senior Landman in Meridian's Farmington Area Land Depart-
22 ment.

23 Q Mr. Hopkins, on prior occasions have you
24 testified as a petroleum landman before the Oil Conserva-
25 tion Division?

1 A Yes, I have.

2 Q In fact you provided expert land testi-
3 mony with regards to both of these cases at the prior
4 hearing back in November.

5 A Yes, sir, I did.

6 Q Have you made further and additional
7 studies with regards to the land reasons or justifications
8 to seek approval of the two unorthodox or nonstandard pro-
9 ration units for these two wells?

10 A Yes, sir, I have.

11 MR. KELLAHIN: At this time,
12 Mr. Examiner, we tender Mr. Hopkins as an expert petroleum
13 landman.

14 MR. LYON: Mr. Hopkins is
15 qualified.

16 Q Mr. Hopkins, let me start, sir, by
17 showing you Exhibit Number One and having you identify that
18 exhibit.

19 A Exhibit Number One is a land plat of the
20 Howell "C" Com 301 Well and the existing Mesaverde prora-
21 tion units in the surrounding area.

22 Q When we look at Exhibit Number One and
23 the Com 301 Well, we're dealing with Case 9535, are we,
24 sir?

25 A Yes, sir, we are.

1 Q And would you identify for the record
2 what is the spacing unit you're proposing to utilize for
3 the 301 Well for the Fruitland coal gas production?

4 A Yes. We would be proposing to use the
5 southwest quarter of Section 7 and the west half of Sec-
6 tion 18 in 30 North, 8 West, San Juan County, New Mexico.

7 Q Do you have that shown on a subsequent
8 exhibit?

9 A Yes, I do.

10 Q That's Exhibit Number Two?

11 A Yes, sir, it is.

12 Q All right. What have you shown on
13 Exhibit Number Two?

14 A On Exhibit Number Two we've taken the
15 same land map and shown the proposed or existing Fruitland
16 proration units.

17 Q Is the proposed Fruitland gas proration
18 unit identical to the existing Mesaverde proration unit for
19 this unit?

20 A Yes, it is.

21 Q Turn to Exhibit Number 3 now, Mr. Hop-
22 kins, and let's turn to the Com 300 Well, which is Case
23 9545.

24 What have you shown on Exhibit Number
25 Three?

1 A Exhibit Number Three is a land map
2 showing the Howell "G" Com 300 with a well spot and showing
3 the existing Mesaverde proration units surrounding the
4 well.

5 Q Turn now, sir, to Exhibit Number Four.
6 What have you shown on that display?

7 A Exhibit Number Four is an identical copy
8 of the land map for the Howell "G" Com No. 300 with the
9 well spot, showing the proposed or existing Fruitland pro-
10 ration units surrounding the well.

11 Q Are you proposing the same configuration
12 for the Basin Fruitland Coal Gas well, the 300 No. -- the
13 Com 300 Well as exists for the Mesaverde well shown on
14 Exhibit Three?

15 A Yes, sir.

16 Q Let's talk about the nature of the
17 problem that's created this type of solution, Mr. Hopkins.
18 What is occurring on this particular township line that
19 cause all these nonstandard units?

20 A The United State Geological Survey has
21 corrected townships to correct their normal surveys for the
22 curvature of the earth. They try to do so on the westerly
23 and northerly sides of townships, where possible. This is
24 an example of a westerly correction.

25 The six sections on the west side of

1 this township are 100 acres, more or less, short of being a
2 normal section. The correction is then made in only the
3 west half of each of those sections. The east half is as
4 closely as possible to 320 acres. The west half is in the
5 nature of 220 acres on each of these six sections.

6 Q How have oil and gas operators such as
7 Meridian dealt with the western portion of this township 30
8 North, Range 8 West, in forming spacing units for the Mesa-
9 verde production?

10 A They have formed four proration units on
11 the west side of the township, taking 220 acres of full
12 west half and then a quarter section from either the north
13 or south section to form 330, more or less, acre proration
14 units.

15 The reasoning was that this was the
16 least disruptive solution to their problem.

17 They had several alternatives. They
18 could have formed normal 320-acre proration units by simply
19 taking acreage from western offset sections and using a
20 domino principle, we would have a number of orthodox
21 sections to the west all the way out.

22 There are some -- some more finite solu-
23 tions. One would be to take the six westerly sections and
24 laydown the proration units forming 270-acre proration
25 units. You would have a disruption. You would have 12

1 proration units that would be 270 acres in size.

2 The next alternative is to simply leave
3 the west half of each of those six sections as a nonstand-
4 ard in size with 220 acres. That would six be disruptive
5 locations.

6 Back when they were trying to get the
7 Mesaverde proration units outlined, there was another plan
8 and that was to make four disruptive locations, each ap-
9 proximately 330 acres in size. That would maximize the
10 problem. They would be able to take very close to 320
11 acres in size and only have 4 disruptive proration units.

12 Q What solution was chosen for the Mesa-
13 verde proration units, then?

14 A The Oil Conservation Division decided at
15 that time to go with the 4 disruptive units and establish
16 the Mesaverde proration units as shown in the blue color,
17 Exhibit One and Exhibit Three.

18 Q When we deal with the proposed nonstand-
19 are proration unit for the drilling of the Howell "C" Com
20 301 Well, Case 9535.

21 A Yes, sir.

22 Q We're dealing with 334.94 acres?

23 A Yes, sir.

24 Q What is your recommendation to the
25 Examiner about using that existing Mesaverde spacing unit

1 as the spacing unit, then, for this well?

2 A I would recommend that the former Mesa-
3 verde unit be adopted for the Fruitland Coal.

4 Q What are your reasons for that recom-
5 mendation, Mr. Hopkins?

6 A The reason would relate to the fact that
7 this is a very odd situation. We do have a strange land
8 situation in that you have -- cross section lines. The
9 owners in the Mesaverde wells in these proration units are
10 fully accustomed to this. There are operating agreements
11 in place, title opinions performed, Division orders issued,
12 royalty owners, override owners, production payments, have
13 all been made on these nonstandard units and people are
14 very accustomed to it.

15 By switching to a different proration
16 unit for the Fruitland and trying another solution at this
17 point in time, we would cause a great deal of confusion for
18 both royalties, any of the payments we're making and con-
19 tractual.

20 Q Does Meridian operate the two proration
21 units we're dealing with for the Mesaverde wells?

22 A Yes, they do.

23 Q When we deal with the other proration
24 unit in Case 9545, for the Howell Com 300 Well, that's a
25 proration unit that has a size of 331 acres, more or less.

1 A Yes, sir, it does.

2 Q Are your opinions and reasons that you
3 expressed for the No. 301 Well the same for the No. 300
4 Well?

5 A Yes, sir, they are.

6 Q From a landman's perspective, Mr.
7 Hopkins, do you see any other solution that is less disrup-
8 tive, if you will, than the one you're proposing here
9 today?

10 A No, sir, I sought to find the least dis-
11 ruptive solution.

12 Q Have you had any objection from any in-
13 terest owners with regards to the continuation of the Mesa-
14 verde solution and having that apply to the Basin Fruitland
15 coal gas wells to be drilled on these two spacing units?

16 A No, sir.

17 MR. KELLAHIN: That concludes
18 my examination of Mr. Hopkins, Mr. Lyon.

19 We'd move the introduction of
20 his Exhibits One through Four.

21 MR. LYON: Is there objection?
22 Exhibits One through Four will be admitted.

23 Mr. Kellahin, will this wit-
24 ness testify as to the location of the wells and so forth
25 or will the other witness?

1 MR. KELLAHIN: Mr. Smith, the
2 reservoir engineer, is going to speak as to the locations.

3 MR. LYON: I have no questions
4 of this witness.

5
6 JAMES A. SMITH,
7 being called as a witness and being duly sworn upon his
8 oath, testified as follows, to-wit:

9
10 DIRECT EXAMINATION

11 BY MR. KELLAHIN:

12 Q Mr. Smith, would you please state your
13 name and occupation?

14 A James A. Smith. I'm a reservoir engine-
15 er.

16 Q Mr. Smith, have you previously testified
17 before the Division as a reservoir engineer?

18 A No, sir.

19 Q Would you describe for Mr. Lyon when and
20 where you obtained your degree in engineering?

21 A I obtained by petroleum engineering de-
22 gree from the University of Wyoming in 1980.

23 Q This is a Bachelor of Science degree in
24 petroleum engineering?

25 A Bachelors' degree, yes, sir.

1 Q And subsequent to graduation, Mr. Smith,
2 would you outline for us what has been employment exper-
3 ience as a reservoir engineer?

4 A I went to work for El Paso Exploration,
5 which is now Meridian Oil, in Elk City, Oklahoma, January,
6 1981. At that four years I spent there as a drilling en-
7 gineer and production engineer.

8 In September of 1985 I transferred to
9 Amarillo, Texas, where I worked as a drilling engineer.

10 In July of 1986 I transferred to Farm-
11 ington, New Mexico, where I am currently working.

12 From March. 1988, to the present I have
13 been in the Reservoir Engineering Department.

14 Q Let me talk to you generally, Mr. Smith,
15 about the kinds of duties you perform as a reservoir en-
16 gineer since March of '88 to the present insofar as it
17 concerns Meridian's exploration and development of the
18 Basin Fruitland coal gas wells. Describe generally what it
19 is that you do for your company concerning the Fruitland
20 coal gas wells.

21 A I determine where wells should be
22 drilled. I run economics and recommend if a well should be
23 drilled based on economics

24 Q When we look at the unique situation in
25 the western portion of Township 30 North and 8 West, there

1 exist a certain number of Mesaverde nonstandard proration
2 units. Are you familiar with those nonstandard proration
3 units?

4 A Yes, sir.

5 Q Have you reviewed the engineering and
6 geology that apply to the proposed nonstandard spacing
7 units for the Howell Com 300 and the Howell Com 301 Well?

8 A Yes, sir.

9 Q And have you caused to be prepared an
10 exhibit that illustrates some of that information?

11 A Yes, sir.

12 Q Let me turn, sir, to Exhibit Number Five
13 and ask you if that is your exhibit.

14 A Yes, sir.

15 Q Let's take a moment and have you summar-
16 ize for us the information that's on the display.

17 A This Exhibit Number Five is a net coal,
18 Fruitland coal thickness map. It shows in green the wells
19 we're dealing with today, the two wells.

20 The pink dots show surrounding wells
21 that are either drilled or proposed to be drilled.

22 Q The wells highlighted in the pink and
23 the green are Fruitland coal gas wells.

24 A Yes, sir.

25 Q When we look at the proration unit for

1 the Howell Com 300 Well, the Division has adopted some
2 special rules and regulations for the Basin Fruitland coal
3 gas wells and they require those wells within a given
4 section to be located in a particular quarter section, do
5 they not?

6 A Yes, sir.

7 Q Where are the wells required to be
8 drilled to be on pattern and in compliance with that rule?

9 A The northeast quarter and/or the south-
10 west quarter of each section.

11 Q Do either one of these wells satisfy
12 that pattern arrangement for the Basin Fruitland coal gas
13 wells?

14 A No, sir.

15 Q In addition, they have a further rule
16 with regards to the footage location of the wells, do they
17 not?

18 A Yes, sir.

19 Q And what is the footage location re-
20 quirement?

21 A 790 feet from each lease line and 130
22 feet from the interior quarter section line.

23 Q Do either one or both of these wells
24 satisfy that footage requirement of the rule?

25 A Yes, sir.

1 Q Which one satisfies the footage re-
2 quirement?

3 A The Howell "G" Com No. 300 Well.

4 Q As a reservoir engineer, Mr. Smith,
5 would you describe for us the kind of factors, parameters,
6 or the criteria that you apply in helping decide where you
7 recommend that the -- your company locate the Basin Fruit-
8 land coal wells?

9 A I examined the thicknesses, limits,
10 fractures, cleating, over-pressured areas, kicks, to deter-
11 mine these locations.

12 Q One of the basic requirements of the
13 special rules for the Basin Fruitland Coal was to maintain
14 where possible patterns where wells were drilled approxi-
15 mately on 320-acre spacing.

16 Are you familiar with that requirement?

17 A Yes, sir.

18 Q In what ways do either or both of these
19 wells help satisfy that condition of maintaining widely
20 spaced wells on approximately 320-acre spacing patterns?

21 A They follow the uniform pattern of 320
22 acres as shown on our Exhibit Five.

23 Q Okay. When we look at Exhibit Five, all
24 of the pink dots to the east of the two well locations, are
25 those Meridian wells, either drilled or proposed to be

1 drilled?

2 A Yes, sir.

3 Q And with the exclusion of the well dot
4 in Section 13, just to the west of the Com 301, forget that
5 for a moment, all right, sir?

6 A Okay.

7 Q When we look at all the rest of the
8 wells, do we see a general well spacing pattern in rela-
9 tion to these two wells that maintain for you that 320-acre
10 pattern?

11 A Yes, sir.

12 Q When we look at Section 13, is that also
13 a Meridian well?

14 A Yes, sir.

15 Q In the northeast quarter?

16 A Yes, sir.

17 Q In applying the different factors you
18 utilize, Mr. Smith, in finding well locations, let me con-
19 centrate first of all on the spacing unit for the 300 Well,
20 in applying all those factors to the 300 well, have you
21 found a location within that spacing unit that gives you a
22 higher value, if you will, for all those parameters than
23 the proposed unorthodox location?

24 A No, sir.

25 Q When we look at the Com 301 Well and we

1 apply all those factors or parameters, is there an alter-
2 native location for that well that gives you a higher value
3 for picking well locations than the proposed unorthodox
4 location?

5 A No, sir.

6 Q Describe for us the specific footage
7 locations. Do you have the information --

8 A Yes, sir.

9 Q -- that will give us the exact location
10 for each of these wells?

11 A Yes, sir.

12 Q Let's start with the 300 Well, what's
13 the exact footage?

14 A It is located in Section 6, 30 North, 8
15 West, 1430 feet from the north line, 1090 feet from the
16 west line.

17 Q Okay, and the 301 Well?

18 A Located in Section 18, 30 North, 8 West,
19 1660 from the north line, 1320 from the west line.

20 Q Let me look again at Exhibit Number Five
21 with you, Mr. Smith, I understand that one of the values
22 you use is coal thickness in helping you pick locations.

23 A Yes, sir.

24 Q In looking at the spacing unit for the
25 No. 300 Well, give us an estimate of the range of coal

1 thickness within that spacing unit.

2 A 40 to 50 feet.

3 Q And at the proposed unorthodox location,
4 approximately what is the coal thickness at that location?

5 A 44 Feet.

6 Q And what are the coal thicknesses
7 ranging for the spacing unit for the 301 Well?

8 A 39 to 41 feet.

9 Q And at the proposed location what is
10 your estimate of the approximate coal thickness at that
11 location?

12 A 40 feet.

13 Q In making your study, Mr. Smith, of the
14 various items that go into making your choices on well
15 locations, do you find any factors available to you based
16 upon your present knowledge, that cause you to recommend
17 that either of these locations not be drilled at these
18 points?

19 A No.

20 Q Have you reviewed the information shown
21 on Exhibit Number One -- Number Five and satisfied yourself
22 that it's true and accurate to the best of your knowledge,
23 information and belief?

24 A Yes, sir.

25 MR. KELLAHIN: That concludes

1 my examination of Mr. Smith, Mr. Lyon. We move the intro-
2 duction of his Exhibit Number Five.

3 MR. LYON: If I didn't --

4 MR. KELLAHIN: I think we did
5 One through Four.

6 MR. LYON: Did we do One
7 through Four or One through Five? I couldn't remember.

8 Is there objection?

9 Exhibit Five will be admitted.
10

11 CROSS EXAMINATION

12 BY MR. LYON:

13 Q Mr. Smith, as I interpret Exhibit Five,
14 the pink dots, pink circles, represent existing coal gas
15 wells?

16 A They represent existing or planned
17 wells, existing being already drilled; planned being per-
18 mitted, ready to be drilled.

19 Q Right. Now, the west half of Sections
20 6, 7, and 18 are irregular and were the reason that we had
21 to have a nonstandard unit, is that correct?

22 A That's correct.

23 Q The east half of each of those sections
24 is regular, is that right?

25 A Yes, sir.

1 Q Now, the coal gas rules specify loca-
2 tions in the northeast quarter or the southwest quarter.

3 If you drill a well in the northwest
4 quarter of Section 6, you're going to have a row of wells
5 across there which will disturb the uniformity of spacing.
6 Do you agree with that?

7 A If a well is drilled, yes.

8 Q And also in the northwest quarter of
9 Section 18 the regular location would be in the northeast
10 quarter, which would result in a row of three wells right
11 across the northeast of 13, northwest of 18, and northeast
12 of (unclear).

13 A Yes, sir.

14 Q And your exhibit shows all -- all of the
15 wells that presently exist in the coal gas within the area
16 shown, is that right, either -- either wells existing or
17 planned wells.

18 A At this point in time, yes, sir.

19 Q There are no existing wells that are not
20 indicated on here.

21 A That's correct.

22 MR. LYON: That's all my ques-
23 tions.

24 Anything else?

25 MR. KELLAHIN: I believe

1 that's all, Mr. Examiner.

2 MR. LYON: The witness may be
3 excused and we'll take the case under advisement.

4

5 (Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY
CERTIFY that the foregoing Transcript of Hearing before the
Oil Conservation Division (Commission) was reported by me;
that the said transcript is a full, true and correct record
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 9535/9545
heard by me on Jan. 18 1987.

W. Boyd, Examiner
Oil Conservation Division